



Physical Activity and Physical Education in California Schools

A survey of district/county office of education perceptions and practices

Research Brief | April 2010

INTRODUCTION AND BACKGROUND

Research shows that students who participate in daily physical activity exhibit a more positive attitude towards school, better attendance and increased academic performance.¹ However, children are less physically active than ever before.² Nearly 40 percent of California children are not physically fit,³ and the prevalence of obesity among school-age children has more than doubled for children aged 6–11 years (from 7 percent to 17 percent) and more than tripled for children aged 12–19 years (from 5 percent to 18 percent) in the past 30 years.⁴

Schools play an important role in influencing student physical activity behaviors. They are also in a unique position to provide a safe environment for physical activity opportunities before, during and after the school day. Schools with numerous physical activity opportunities and quality physical education programs may see an increase in student concentration, a reduction in disruptive behaviors and improved academic performance.⁵ Further, quality physical activity and P.E. programs can contribute to the prevention of obesity and chronic disease.⁶ School boards should consider supporting the adoption, implementation and monitoring of comprehensive policies and programs that strengthen opportunities for students to be physically active, healthier and more ready to learn.

This research brief summarizes key results from a confidential online survey given to California school board members on “Physical Activity and Physical Education in California Schools” developed by the California School Boards Association (CSBA) and California Project LEAN (Leaders Encouraging Activity and Nutrition) (CPL). Based on the survey results, this brief highlights actions school districts/county offices of education (COEs) can take to support physical activity and P.E. The survey objectives were to determine

existing physical activity and P.E. district/COE policies and practices, the opportunities and barriers to improving physical activity and P.E. and the perceptions of school board members regarding the impact of student physical activity.

For the purposes of the survey, physical activity was defined as bodily movement of any type. Opportunities for physical activity before, during and after the school day include:

- P.E. class
- Classroom-based movement (activity breaks and incorporating physical activity into academic lessons)
- Recess or free play
- Walking, bicycling or other active transportation to and from school
- Recreational sport and play

METHODOLOGY

In January 2009, an online survey was sent to 2,669 California school board members with e-mail addresses. The survey yielded 339 responses for a response rate of 13 percent. The survey data included responses from districts/COEs of various sizes and income levels in every geographic region throughout California.

KEY FINDINGS

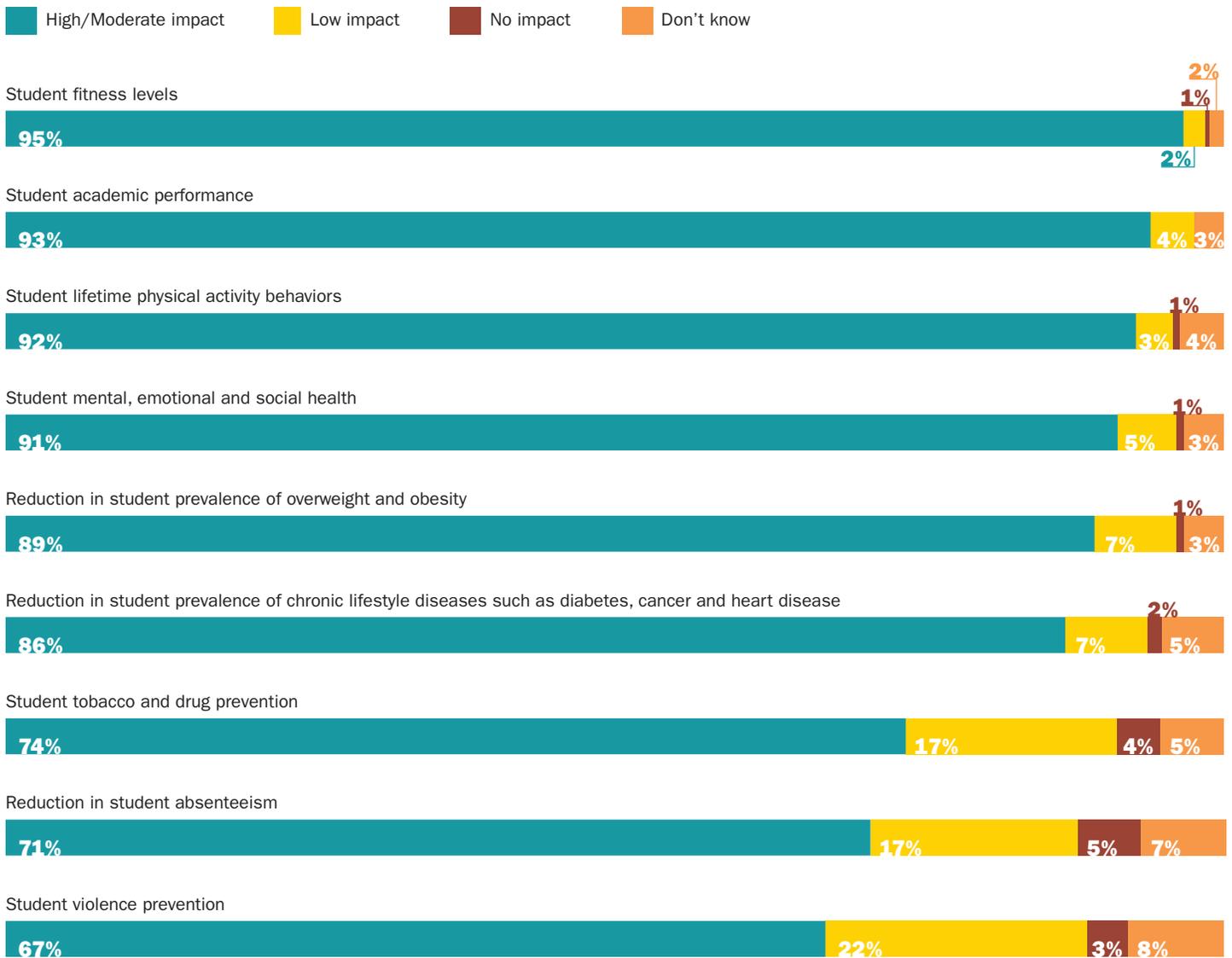
Perceptions regarding positive impact of physical activity

School board member respondents held a prevailing belief that physical activity positively impacts a variety of student health and academic outcomes (see Figure 1 on page 2). The majority of respondents indicated that physical activity has a high or moderate positive impact on student fitness levels, academic performance, lifetime physical activity behaviors and mental, emotional and social health.



FIGURE 1

Perceptions regarding positive impact of physical activity



Key school wellness issues

School board member respondents indicated that the top four school wellness issues their district/COE was currently addressing were:

1. Food and nutrition policies or practices (84 percent)
2. Physical activity and P.E. policies or practices (70 percent)
3. Tobacco and drug prevention (69 percent)
4. Safety issues such as injury/violence prevention (59 percent)

District/COE monitoring of physical activity and P.E. policy implementation

School board member respondents indicated that the top four individuals most responsible for monitoring implementation of district/COE physical activity and P.E. policies were assistant superintendents (26 percent), P.E. teachers (16 percent), principals (14 percent) and superintendents (12 percent).

Community access to school physical activity facilities

The majority of respondents (52 percent) reported that all of the schools within their district/COE were open to the public outside of school hours for physical activity programs or free play. Another 36 percent reported that some of their schools were open to the public and less than 10 percent of respondents said that none of their schools were open to the public after school hours. A greater percentage of respondents from higher income districts (less than 25 percent of students in the National School Lunch Program) (68 percent) indicated that some or all of their schools were open outside of school hours compared to respondents from lower income districts

(greater than 75 percent of students in the NSLP) (44 percent). The most frequently cited reasons for not opening schools to the public after school hours were:

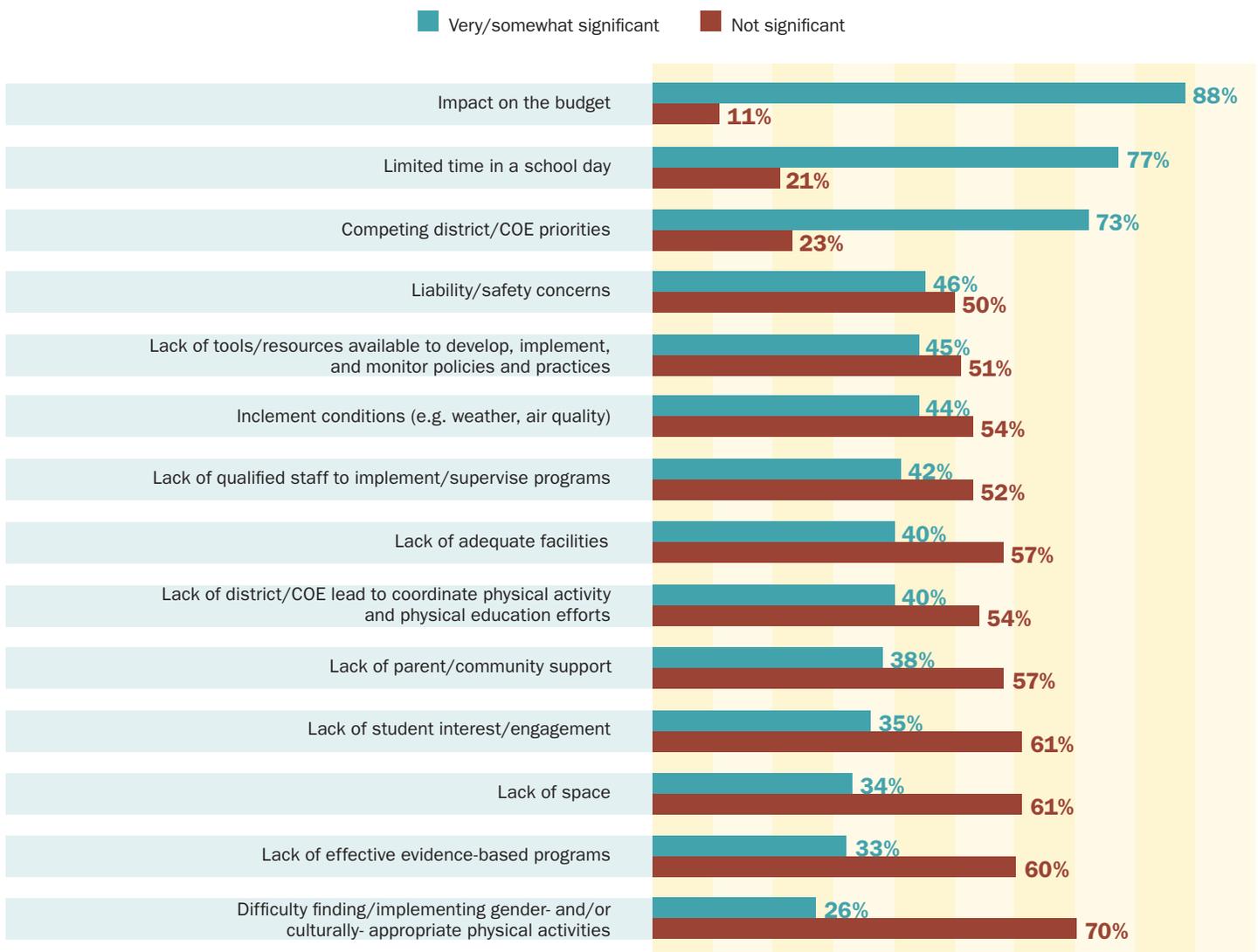
1. Lack of staffing (45 percent)
2. Liability concerns (44 percent)
3. Safety concerns (44 percent)
4. Insufficient funding (39 percent)
5. Risk of vandalism (38 percent)

District/COE barriers and challenges in addressing physical activity and P.E.

School board members were asked to identify key barriers and challenges in addressing physical activity and P.E. at the district/COE level (see Figure 2). The

FIGURE 2

District/COE barriers and challenges in addressing physical activity and P.E.



three key barriers respondents identified as “very significant” or “somewhat significant” were impact on the budget, limited time in a school day and competing district/COE priorities.

Additional barriers and challenges that were either “very significant” or “somewhat significant” for respondents from lower income districts were lack of parent/community support (66 percent), lack of tools/resources available to develop, implement and monitor policies and practices (60 percent), inclement weather conditions (58 percent) and lack of student interest/engagement (54 percent).

Impacts on physical activity and P.E. in the 2007–2008 academic year

During difficult economic times, school board member respondents indicated that in the 2007–2008 school year, physical activity and P.E. opportunities had been impacted in their district/COE. An increase in P.E. class size (26 percent), reduction in the amount of time dedicated to P.E. class (23 percent) and reduction in staff who oversee physical activity opportunities (22 percent) were the most common negative impacts. On all indicators, respondents from lower income districts reported a greater negative impact on physical activity and P.E. opportunities than respondents from higher income districts.

ACTION STEPS FOR BOARDS

The findings from this survey suggest a number of action steps that school board members can take to effectively support the adoption, implementation and monitoring of physical activity and P.E. programs and policies.

1. Develop an understanding among board, district/COE staff and the community of the importance of physical activity and its link to student learning. (For more information visit www.csba.org/EducationIssues/EducationIssues/Wellness/PhysicalActivity.aspx.)
2. Adopt and align physical activity and P.E. policies to accomplish district/COE goals and objectives. (For example, see CSBA’s sample policies and administrative regulations BP 5030 – Student Wellness, BP/AR 6142.7 – Physical Education and Activity and BP/AR 5142.2 – Safe Routes to School Program.)
3. Ensure that the district/COE explores funding opportunities for improving physical activity opportunities before, during and after school. Some examples of federal and state grants include the Physical Education Program (PEP) grant, Physical Education Teacher Incentive Program (PETIP) and Safe Routes to School infrastructure and noninfrastructure grants. (See the policy brief *Safe Routes to School: Program and Policy Strategies*, jointly issued by CSBA and CPL.)
4. Ensure the district/COE explores cost-effective strategies to strengthen physical activity and P.E., such as:
 - Provide ongoing professional development opportunities to support classroom teachers and other staff.
 - Adopt policy and curriculum that engage students in moderate to vigorous physical activity for at least 30 minutes during the school day, including at least 50 percent of P.E. class time.
 - Integrate physical activity into the classroom by establishing physical activity breaks during class and/or incorporating physical activity into standard academic lessons.
5. Monitor physical activity and P.E. programs to ensure that they are meeting federal, state and local requirements and the district’s/COE’s vision and goals. Schedule regular reports to the board, program partners and the public from the superintendent or designee on district/COE progress on physical activity and P.E. policy implementation.
6. Collaborate with school and community stakeholders to maximize resources and create or enhance physical activity and P.E. programs and opportunities before, during and after school, such as:
 - Establish a Safe Routes to School program by partnering with local city or county government, school staff, students, parents and parent organizations, community-based organizations and/or businesses to encourage safe walking, bicycling and other physically active forms of transportation to and from school.
 - Partner with community-based organizations, parents and students to strengthen physical activity opportunities during the school day, such as starting a walking or running club or providing structured games or supervision during recess.
 - Partner on joint use programs and/or facilities with local government or community-based organizations in order to enhance after school physical activity programs for students.

RESOURCE LIST

The following resources from the California School Boards Association and California Project LEAN (Leaders Encouraging Activity and Nutrition) will assist school leaders in physical activity and physical education policy development, implementation and monitoring. Most of these resources can be downloaded or purchased from the CSBA Web site at www.csba.org or from the CPL Web site at www.CaliforniaProjectLEAN.org.

Community Collaboration

- **Building Healthy Communities: A School Leaders Guide to Collaboration and Community Engagement** by CSBA and the Cities Counties Schools Partnership discusses the foundations of collaboration and provides steps to creating successful collaborations, case studies and resources.
- **Parents in Action: A Guide to Engaging Parents in Local School Wellness Policy** by CPL provides resources, tools and lesson plans that help school stakeholders engage parents in Local School Wellness Policy implementation, monitoring and evaluation.
- **Playing the Policy Game Advocacy Guide** by CPL is designed to engage youth in the school policy process and highlights nutrition and physical activity policies that teens can pursue with adult guidance.

Policy Development

- **Student Wellness: A Healthy Food and Physical Activity Policy Resource Guide** by CSBA and CPL for school policymakers, includes recommendations for developing comprehensive nutrition and physical activity policies and programs.
- **Physical Education and California Schools** is a CSBA Policy Brief that describes the board's role in ensuring that students have access to high-quality physical education programs.
- **Active Bodies, Active Minds: Physical Activity and Academic Achievement** is a fact sheet by CSBA and CPL for school governance leaders that outlines the link between physical activity and academic learning.
- **Maximizing Opportunities for Physical Activity During the School Day** is a fact sheet by CSBA and CPL for school governance leaders to support increased physical activity opportunities at school, such as classroom activities, recess, lunch, clubs, fundraisers and competitions.

- **Moderate to Vigorous Physical Activity to Improve Health and Academic Outcomes** is a joint fact sheet by CSBA and CPL for school governance leaders that addresses the importance of increasing the quantity and quality of physical activity in P.E.
- **Safe Routes to School: Program and Policy Strategies** is a policy brief by CSBA and CPL that provides information for school governance leaders on how to support active transportation (e.g., walking or bicycling) to and from school.
- **Maximizing Opportunities for Physical Activity through Joint Use of Facilities** is a policy brief by CSBA and CPL that provides governance leaders with strategies for jointly sharing recreational facilities with other agencies for physical activity programs.
- **Sample Policies** by CSBA on student wellness, physical education and activity, safe routes to school and joint use agreements are available at www.csba.org/pab.aspx.
- **Reaching School Board Members Guide** by CPL helps advocates convey their policy message to school board members in order to create effective local board nutrition policies.

Policy Implementation

- **Policy in Action: A Guide to Implementing Your Local School Wellness Policy** by CPL is a user-friendly guide designed to serve as a roadmap for implementing school nutrition, physical activity policies and local wellness policies. The guide includes helpful hand-outs to develop your action plan for implementing your policy.

Policy Monitoring

- **Monitoring for Success: Student Wellness Policy Implementation Monitoring Report and Guide** by CSBA for governance leaders to fulfill the monitoring and implementation requirements of the student wellness policy.

FOR FURTHER INFORMATION

California School Boards Association is a nonprofit association consisting of nearly all of the state's 1,000 school districts and county offices of education. The member-driven organization supports the governance team—school board members, superintendents, and senior administrative staff—in its complex leadership role, offering policy services, policy analysis, advocacy, publications, continuing education, financial programs, legal services, and more. For policy briefs, publications and other resources on a variety of school wellness issues, including asthma, mental health, nutrition, obesity, oral health, physical activity and physical education, visit www.csba.org/Wellness.aspx.

California Project LEAN (Leaders Encouraging Activity and Nutrition) is a joint program of the California Department of Public Health and the Public Health Institute that focuses on youth and parent empowerment, policy and environmental change strategies, and community-based solutions to increase healthy eating and physical activity. CPL provides training, tools and technical assistance on developing, implementing and monitoring school wellness policies. www.CaliforniaProjectLEAN.org.

REFERENCES

- ¹ Centers for Disease Control and Prevention (CDC) (2004). Prevalence of overweight among children and adolescents: United States, 2003–2004. CDC National Center for Health Statistics. Retrieved February 24, 2009 from: http://www.cdc.gov/nchs/products/pubs/pubd/hestats/overweight/overwght_child_03.htm.
- Centers for Disease Control and Prevention (2006). *National Health and Nutrition Examination Survey data on the prevalence of overweight among children and adolescents: United States, 1976 to 1980 and 2003–2006*. Retrieved April 15, 2009 from: <http://www.cdc.gov/nccdphp/dnpa/obesity/childhood/prevalence.htm>.
- Chomitz, V. R., Slining, M. M., McGowan, R. J., Dawson, G. F., & Hacker, K. A. (February 2008). Is there a relationship between physical fitness and academic achievement? Positive results from public school children in northeastern United States. *Journal of School Health*, Vol. 79, No. 1, 30–37.
- Stevens, T. A., To, Y., Stevenson, S. J., & Lochbaum, M. R. (2008). The importance of physical activity and physical education in the prediction of academic achievement. *Journal of Sport Behavior*, Vol. 31, No. 4, 368–388.
- Trudeau, F. & Shephard, R. (2008). Physical education, school physical activity, school sports and academic performance. *International Journal of Behavioral Nutrition and Physical Activity*, 5:10, 1–12.
- ² Youth Risk Behavior Surveillance System (YRBSS) (2007). *Trends in the prevalence of physical activity: national YRBS: 1991–2007*. Retrieved February 24, 2009 from: http://www.cdc.gov/HealthyYouth/yrbs/pdf/yrbs07_us_physical_activity_trend.pdf.
- ³ California Center for Public Health Advocacy (2002). *An epidemic: overweight and unfit children in California assembly districts*. Retrieved May 15, 2009 from: http://www.publichealthadvocacy.org/policy_briefs/study_documents/Full_Report1.pdf.
- ⁴ Centers for Disease Control and Prevention (2006). *National Health and Nutrition Examination Survey data on the prevalence of overweight among children and adolescents: United States, 1976 to 1980 and 2003–2006*. Retrieved April 15, 2009 from: <http://www.cdc.gov/nccdphp/dnpa/obesity/childhood/prevalence.htm>.
- ⁵ California Department of Education (2005). *A study of the relationship between physical fitness and academic achievement in California using 2004 test results*. Retrieved February 28, 2009 from: <http://www.cde.ca.gov/ta/tg/pf/documents/2004pftresults.doc>.
- Coe, D. P., Pivarnik, J. M., Womack, C. J., Reeves, M. J., & Malina, R. M. (2006). Effect of PE and activity levels on academic achievement in children. *Medicine & Science in Sports & Exercise*, Vol. 38, No. 8, pp. 1515–1519.
- Sallis, J. F., McKenzie, T. L., Kolody, B., Lewis, M., Marshall, S., & Rosengard, P. (1999). Effects of health-related physical education on academic achievement: Project SPARK. *Research Quarterly for Exercise and Sport*, 70, 127–134.
- Hillman, C. H., Castelli, D., & Buck, S. M. (2005) Aerobic fitness and cognitive function in healthy preadolescent children. *Medicine & Science in Sports & Exercise*, 37, 1967–1974.
- Sibley, B. A., & Etnier, J. L. (2003). The relationship between physical activity and cognition in children: A meta-analysis. *Pediatric Exercise Science*, 15, 243–256.
- Summerford, C. (2001). What is the impact of exercise on brain function for academic learning? *Teaching Elementary Physical Education*, 12, 6–8.
- Tomprowski, P. D., Davis, C. L., Miller, P. H., & Naglieri, J. A. (2008). Exercise and children's intelligence, cognition, and academic achievement. *Educational Psychology Review*, Vol. 20, Issue 2, 111–131.
- ⁶ Freedman, D. S., Khan, L. K., & Dietz, W. H. (2001). Relationship of childhood obesity and coronary heart disease risk factors in adulthood: the Bogalusa study. *Pediatrics*, 108, 712–718.
- Pinhas-Hamiel, O., Dolan, L. M., & Daniels, S. R. (1996). Increased incidence of non-insulin-dependent diabetes among adolescents. *Journal of Pediatrics*, 128, 608–615.
- Lauer, R. M., & Clarke, W. R. (1989). Childhood risk factors for high adult blood pressure: the Mascatine study. *Pediatrics*, 84, 633–641.
- Munter, P., He, J., & Cutler, J. A. (2004). Trends in blood pressure among children and adolescents. *Journal of the American Medical Association*, 291, 2107–2113.



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